Listing of Claims:

1. (currently amended) An optical sensor system configured to be mounted to a vehicle, comprising: at least one optical sensor and at least one lens; and at least one electro-optic variable aperture positioned between said at least one optical sensor and said at least one lens along an optical axis of said optical sensor, wherein said electro-optic variable aperture comprises a solution-phase medium electro-optic medium.

2. (currently amended) An optical sensor system as in claim 1 wherein said ~~electro-optic variable aperture comprises an~~ electro-optic medium ~~selected from the group comprising: a solution-phase medium, a surface-confined medium, a solid-state medium and an electrodeposition medium~~ is a free-standing gell.

3. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.

4. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.

5. (original) An optical sensor system as in claim 4 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.

6. (original) An optical sensor system as in claim 5, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

7. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.

8. (original) An optical sensor system as in claim 7 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.

9. (original) An optical sensor system as in claim 8, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

10. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising a cell spacing of about 50 .mu.m.

11. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about 80 .OMEGA./.quadrature..

12. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.

13. (original) An optical sensor system as in claim 1 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.

14. (twice amended) An optical system configured to be mounted to a vehicle, comprising: at least one electro-optic variable aperture comprising at least a center area with different light ray attenuation characteristics than an area at least partially surrounding said center area, wherein the optical system is incorporated in a vehicle

equipment system.

15. (previously amended) An optical system as in claim 14 wherein said electro-optic variable aperture comprises an electro-optic medium selected from the group comprising: a solution-phase medium, a surface confined medium, a solid state medium and an electrodeposition medium.

16. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.

17. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.

18. (previously amended) An optical system as in claim 17 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.

19. (previously amended) An optical system as in claim 18, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

20. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.

21. (previously amended) An optical system as in claim 20 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.

22. (previously amended) An optical system as in claim 21, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

23. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising a cell spacing of about 50 .mu.m.

24. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about 80 .OMEGA./.quadrature..

25. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.

26. (previously amended) An optical system as in claim 14 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.

27. (currently amended) An optical sensor system configured to be mounted to a vehicle, comprising: at least one optical sensor; and at least one electro-optic variable aperture positioned along an optical path of said at least one optical sensor, said electro-optic variable aperture is operable to selectively attenuate light rays, wherein the optical sensor system is incorporated in a vehicle equipment system.

28. (original) An optical sensor system as in claim 27 wherein said electro-optic variable aperture comprises an electro-optic medium selected from the group comprising: a solution-phase medium, a surface confined medium, a solid state medium and an electrodeposition medium.

29. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.

30. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.

31. (original) An optical sensor system as in claim 30 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.

32. (original) An optical sensor system as in claim 31, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

33. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.

34. (original) An optical sensor system as in claim 33 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.

35. (original) An optical sensor system as in claim 34, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

36. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising a cell spacing of about 50 .mu.m.

37. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about 80 .OMEGA./.quadrature..

38. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.

39. (original) An optical sensor system as in claim 27 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.